SEQUENCE LISTING

(1) GENERAL INFORMATION:

   (i) APPLICANT: BYWATER, MARGARET
              LINDSTROM, PER
              INGANAS, MATS

  (ii) TITLE OF INVENTION: SEQUENCE-BASED MUTATION ANALYSIS OF
       NEOPLASTIC TISSUE FOR DIAGNOSIS OR PROGNOSIS OF THE
       NEOPLASIA

 (iii) NUMBER OF SEQUENCES: 25

  (iv) CORRESPONDENCE ADDRESS:
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      (E) COUNTRY: USA
      (F) ZIP: 22040-0747

   (v) COMPUTER READABLE FORM:
      (A) MEDIUM TYPE: Floppy disk
      (B) COMPUTER: IBM PC compatible
      (C) OPERATING SYSTEM: PC-DOS/MS-DOS
      (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

  (vi) CURRENT APPLICATION DATA:
      (A) APPLICATION NUMBER:
      (B) FILING DATE:
      (C) CLASSIFICATION:

 (viii) ATTORNEY/AGENT INFORMATION:
      (A) NAME: MURPHY JR, GERALD M
      (B) REGISTRATION NUMBER: 28,977
      (C) REFERENCE/DOCKET NUMBER: 1614-178

  (ix) TELECOMMUNICATION INFORMATION:
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      (B) TELEFAX: (703) 205-8050

(2) INFORMATION FOR SEQ ID NO:1:

   (i) SEQUENCE CHARACTERISTICS:
      (A) LENGTH: 19 base pairs
      (B) TYPE: nucleic acid
      (C) STRANDEDNESS: single
      (D) TOPOLOGY: linear

  (ii) MOLECULE TYPE: other nucleic acid
      (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

GTGCTTTCCA CGACGGTG A   19

(2) INFORMATION FOR SEQ ID NO:2:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 23 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:

TCATGTGCTG TGACTGCTTG TAG   23

(2) INFORMATION FOR SEQ ID NO:3:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 19 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:

GGCGGGGGTG TGGAATCAA   19

(2) INFORMATION FOR SEQ ID NO:4:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 23 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:

TCTGGCATTC TGGGAGCTTC ATC   23

(2) INFORMATION FOR SEQ ID NO:5:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 20 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:

CCGTCCCAGT AGATTACCAC   20

(2) INFORMATION FOR SEQ ID NO:6:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 20 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:

GTTTTCCGTC TGGGCTTCTT   20

(2) INFORMATION FOR SEQ ID NO:7:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 27 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:

CTGTGACTTG CACGTACTCC CCTGCCC   27

(2) INFORMATION FOR SEQ ID NO:8:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 23 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:8:

TAGACTGACC CTTTTTGGAC TTC   23

(2) INFORMATION FOR SEQ ID NO:9:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 21 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:9:

CGTGTGGAGT ATTTGGATGA C   21

(2) INFORMATION FOR SEQ ID NO:10:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 22 base pairs
            (B) TYPE: nucleic acid
            (C) STRANDEDNESS: single
            (D) TOPOLOGY: linear

        (ii) MOLECULE TYPE: other nucleic acid
            (A) DESCRIPTION: /desc = "PRIMER"

        (xi) SEQUENCE DESCRIPTION: SEQ ID NO:10:

TGGTTTCTTC TTTGGCTGGG GA   22

(2) INFORMATION FOR SEQ ID NO:11:

        (i) SEQUENCE CHARACTERISTICS:
            (A) LENGTH: 21 base pairs

        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:

GCTTTGAGGT GCGTGTTTGT G   21

(2) INFORMATION FOR SEQ ID NO:12:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:

CTGTCAGTGG GGAACAAGAA G   21

(2) INFORMATION FOR SEQ ID NO:13:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 20 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:13:

GGAGCACTAA GCGAGCACTG   20

(2) INFORMATION FOR SEQ ID NO:14:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

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    (ii) MOLECULE TYPE: other nucleic acid
         (A) DESCRIPTION: /desc = "PRIMER"




    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:14:

GACACGCTTC CCTGGATTGG C                                          21

(2) INFORMATION FOR SEQ ID NO:15:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 22 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
         (A) DESCRIPTION: /desc = "PRIMER"




    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:15:

GCAAAACATC TTGTTGAGGG CA                                         22

(2) INFORMATION FOR SEQ ID NO:16:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 24 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
         (A) DESCRIPTION: /desc = "PRIMER"




    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:16:

CAGGGGAGTA CGTGCAAGTC ACAG                                       24

(2) INFORMATION FOR SEQ ID NO:17:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 22 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
         (A) DESCRIPTION: /desc = "PRIMER"
```

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:17:

GTTTCCGTCT GGGCTTCTTG CA   22

(2) INFORMATION FOR SEQ ID NO:18:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:18:

GGTACAGTCA GAGCCAACCT C   21

(2) INFORMATION FOR SEQ ID NO:19:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:19:

GCCAACCTCA GGCGGCTCAT A   21

(2) INFORMATION FOR SEQ ID NO:20:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:20:

TGGCCCCTCC TCAGCATCTT A   21

(2) INFORMATION FOR SEQ ID NO:21:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 20 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:21:

CAAGGCCTCA TTCAGCTCTC   20

(2) INFORMATION FOR SEQ ID NO:22:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

CGAGTGGAAG GAAATTTGCG T   21

(2) INFORMATION FOR SEQ ID NO:23:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 22 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:23:

CGGCGCACAG AGGAAGAGAA TC   22

(2) INFORMATION FOR SEQ ID NO:24:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 23 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

CGCACACCTA TTGCAAGCAA GGG   23

(2) INFORMATION FOR SEQ ID NO:25:

    (i) SEQUENCE CHARACTERISTICS:
        (A) LENGTH: 21 base pairs
        (B) TYPE: nucleic acid
        (C) STRANDEDNESS: single
        (D) TOPOLOGY: linear

    (ii) MOLECULE TYPE: other nucleic acid
        (A) DESCRIPTION: /desc = "PRIMER"

    (xi) SEQUENCE DESCRIPTION: SEQ ID NO:25:

GGGGAGCCTC ACCACGAGCT G   21